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EDITORIAL

SOME PAGES FROM THE HISTORY OF THE PALEOVISIT IDEA

History of the problem of paleovisit is long and really fascinating. During the past decades and even centuries, brilliant conjectures have been made on the subject of paleovisits by scholars, engineers, and SF writers. There is as yet no comprehensive study of historic side of this problem; that's why we are going to publish the most important materials of this sort (or their summaries, if too lengthy) in special paleovisitological issues of *RIAP Bulletin*. In any case, it is evident that the idea of paleovisit is by no means a "modern myth" (as many enthusiastic debunkers proclaim with much noise and little evidence). In fact, it is neither modern, nor a myth. Many deep thinkers on this planet accepted this idea at least as a possibility and looked for evidence in its favor. The list of such works is not too short.

One of interesting — and half-forgotten — publications from this list is the interview with the outstanding Russian pioneers of cosmonautics N.A.Rynin, K.E.Tsiolkovsky, and Y.I.Perelman, published in the journal *Vestnik Znaniya* (Herald of Knowledge), Leningrad, 1930, No. 4. The general contents of this interview was partly exposed in some books and papers[1], but its complete translation into English was never published. Therefore, we believe it will be of interest to RB readers.

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It must be also noted that subscriber No. 41912, whose letter provoked the discussion in *Vestnik Znaniya*, has in fact formulated the main idea of the so-called Fermi paradox — quite clearly and more than ten years before it was advanced at the famous (even if a little apocryphal) lunch in Los Alamos. As is known, initially it was just a question: "Where is everybody?" Later (in the works by V.Lvov, M.Hart, F.Tipler, I.S.Shklovsky) this paradox acquired a more definite logical structure: 1) the Earth has never been visited by extraterrestrials; 2) interstellar flights are technically feasible; 3) therefore, extraterrestrial civilizations do not exist.

Obviously the letter of the anonymous subscriber contains just another form of the same construction. Simple justice demands that it be renamed as the "paradox of subscriber No.41912", as it was recently proposed by Dr.Yuriy Morozov! Or at least we should admit that there is nothing new under the sun even in the SETI field!

Another half-forgotten PV subject is the problem of the astronomical lore of the Dogon, an African people living mainly in the Republic of Mali, that attracted much attention some twenty years ago (due to the books of Robert Temple and Eric Guerrier[2]). The interest aroused was, however, rather short-lived. The "silent majority" of the learned community accepted — with few grounds but with great alacrity — the "missionary hypothesis", according to which the astronomical concepts of the Dogon had been borrowed by them from the Western world.[3] Proponents of the Ancient Astronaut theory scoffed at this viewpoint unanimously, but could not add anything substantial to arguments of Temple and Guerrier. Each side remained unconvinced, and the discussion has gradually come to a standstill. Even an attempt to accuse the famous French ethnologists Marcel Griaule and Germaine Dieterlen of forging the source material[4] did not much affect the situation. In this respect paleovisitology resembles ufology: both of them are very non-cumulative.[5] One may argue that scientific paleovisitology is still in its infancy, and non-cumulativeness is typical for prescientific fields

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of cognitive interest. This is certainly so, but the fact remains: practically any supposed trace of paleovisit, worthy (or even not so much worthy) of attention, causes a brief flicker of interest and then falls into oblivion (at least as a possible PV trace, if not completely).

To open a new direction of discussing the Dogon problem, we are publishing a paper by Mrs Ida P. Moffett of the Continuum Foundation (Chino Valley, Arizona, USA) who offers an explaination of the Dogon astronomy on purely mythological (or, rather, culturological) grounds. I have my doubts about such an approach to this problem, but the author's arguments are non-trivial, and her entire conception is far richer than the "missionary hypothesis". After all, the mythological context of a past interstellar contact would necessarily influence its results, and therefore any serious paleovisitological study must take it into consideration.

Notes and References

[1]See: Rubtsov V.V. On the trail of ancient epics and legends. — In: *Na Sushe i na More*, Moscow: Mysl, 1969; Morozov Y.N. *Traces of Ancient Astronauts?* Moscow: Znaniye, 1991; Tomas A. Pioneers of the Ancient Astronaut thesis in Russia. — *Ancient Skies*, 1992, Vol. 19, No. 1.

[2] Temple R.K.G. *The Sirius Mystery*. London: Sidgwick & Jackson, 1976; Guerrier E. *Essai sur la cosmogonie des Dogons: L'Arche du Nommo*. Paris: Laffont, 1975.

[3] See: Roxburgh I.W., Williams I.P. The Dogon Tribe and Sirius. — *The Observatory*, 1975, Vol. 95, No. 1008.

[4] See: van Beck W.E.A. Dogon Restudied. — *Current Anthropology*, 1991, Vol. 32, No. 2. See also: Heusch L. On Griaule on Trial. — *Current Anthropology*, 1991, Vol. 32, No. 4. Incidentally, I remember well a prophetic remark of the late Dr. Evgeniy T. Faddeyev, a well-known Soviet philosopher who took a serious interest in the paleovisit problem, that the only effective "solution" of the Dogon problem on a "non-paleovisit" basis would be a complete denial of the Dogon astronomy as such. Dr. Faddeyev thought the "anti-paleovisit complex" of the modern pseudoscientific (yes, *pseudo*scientific) mentality was strong enough to look just for such a solution. Then (in 1980) I was, let's say, naive enough not to believe him...

[5] Cf.: Rubtsov V.V. Something in the Making. — *RIAP Bulletin*, 1995, Vol. 2, No. 2-3.

— Vladimir V. Rubtsov

IS INTERPLANETARY TRAVEL POSSIBLE?

Vestnik Znaniya (Herald of Knowledge) journal, Leningrad, 1930, No. 4, pp. 152–153

From the Editors [of *Vestnik Znaniya*]: The present paper is the collective answer of prominent scientists, theorists of astronautics to a number of questions received by the Editors of the "Vestnik Znaniya" from readers of our journal. The letter of subscriber No. 41912 has proved the most complete, it contained the whole scope of objections against feasibility of interplanetary communications, and we took it as the basis of this discussion of astronautics. Here are the main points of the letter:

"If interplanetary voyages are at all feasible and if the Earth has not the highest culture in the whole Universe, if there are higher cultures on other planets, then why has not the Earth been visited by inhabitants of other worlds?"

And then, the author of the letter, having yet no answer to his question, makes the conclusion: "1) the Earth has not the highest culture in the Universe; 2) inhabitants of other worlds have never visited the Earth; 3) therefore, interplanetary travel is impossible."

Reply by Prof. N.A.Rynin[1]

The author of the letter is evidently an enthusiast of the attractive idea of interplanetary voyages. At the same time, he puts a question making him doubt if they are feasible.

Let us consider the arguments of the author.

1. We agree that the Earth has not the highest culture in the Universe, but what about its place in our Solar system? This is yet a question which can find a different answer. The investigations of astronomers show that the Earth has, apparently, the most favorable conditions for life in our planetary system. Mercury is a planet of intense heat, Venus' atmosphere is in continual storms of elements, the Moon is a planetary corpse, Mars and all the outer planets receive too little heat from the Sun.

2. The assertion that inhabitants of other worlds have not visited our planet is indeed confirmed[2] by official history of all countries. However, if we turn to the legends and traditions of hoary antiquity we shall notice a strange resemblance in the legends of lands separated by oceans and deserts. The resemblance is that many legends tell of visits to the Earth by inhabitants of other worlds in time immemorial.

Why not assume that these legends are based on some grain of truth? (For details see books by N.A.Rynin "Interplanetary Communications", instalments 1-5, publ. by Soykin.)

3. Finally, the third assertion of the author of the letter that interplanetary travel is impossible because till now nobody has come to us from other worlds will be here analyzed from two points of view. The first one, contained in the end of his statement (the second paragraph) is not and cannot be a sufficient reason, if we consider visiting us by inhabitants of our Solar system in ancient times. As regards inhabitants

of planets of other solar systems, then, apart from technical difficulties of communication with us, we can hardly imagine the duration of the travel of a spaceship to us, e.g. from a planet belonging even to the nearest star. But the main thing is that the feasibility of interplanetary (not interstellar) travel is based at present on theoretical and partly on technical studies of a distinguished group of scientists and engineers, whose number grows with every day. These studies reveal that it is technically feasible for a spacecraft to leave the Earth and, having penetrated through the atmospheric shell and overcome gravity, speed away into the interplanetary space. Admittedly, these scientists are well aware of the fact that the task is very difficult to achieve in practice, many technical problems still are to be solved, as choice of the fuel, cooling of the spacecraft during its motion through the atmosphere, selection of the material, navigation, the conditions of the presence of the man in the vehicle, etc. However, if these scientists and engineers had the means needed for the investigations, the problem of interplanetary travel would be solved in the not so distant future.

Reply by K. E. Tsiolkovsky[3]

Even if machines of intelligent beings of other worlds have never visited the Earth, this does not mean that they did not visit other planets. In the known part of the Universe there are about a million galaxies. Each of them contains thousands of millions of suns. Thus, a certain, probably infinitesimal part of the Universe contains many thousand million million planets.

What proofs are there that none of them has ever visited her sisters?

This is one argument. Another is that we have only the fact that the Earth has not been visited for a few thousand mature years of mankind. And how about the more distant past and the future?... The Earth will still exist for billions of years. It may well be visited during this time.

Europeans had no knowledge of Australia and America for thousands of years. Does this lead us to the conclusion that these continents cannot be reached?

The living world of the Earth will have thousands of millions of years to progress. Hence we see that mankind is yet far from the end of its development, and this might be a reason for our having not been visited by inhabitants of the heavens...

But let us leave philosophy and turn to technology.

My theory of the airplane (see my book "The New Airplane") of high altitudes (stratosphere) shows that at altitudes where air is thinner by a factor of 4, 9 or 16 the speed of a plane can be larger by a factor of 2, 3 or 4 solely if jet engines are used.

At present, experiments on jet engines have started, and airplanes with pressurized, gas tight bodies are being designed.

In such an airplane the density of oxygen does not decrease at high altitudes and a man can make a flight quite safely, without feeling the rarefied atmosphere.

Thus, the speed of "rocket planes" (as termed by the mathematician B.Shershevski) will be higher by a factor of 2, 3, 4, 10 and still more, till it reaches the cosmic velocity which is sufficient to leave the atmosphere and fly around the Earth in vacuum, without energy consumption, as bolides, asteroids, moons, planets and other celestial bodies do.

Here we shall be aided by the light pressure or other unknown forces and then by plants providing food and purifying air in the vehicle. All this will create astronautics.

Reply by Y. I. Perelman[4]

(author of the first book on astronavigation — "Interplanetary Voyages")

It is very naive to believe that interplanetary travels are not possible since hypothetical inhabitants of other worlds have not visited us. Science attaches no importance to arguments asserting that somebody somewhere could have possibly invented something but has not. Even if it were proved that:

1) stars are surrounded by planets;
2) many of these are at present inhabited by intelligent beings;
3) these inhabitants have developed technology similar to ours;
4) they have reached a high degree of perfection in it;
5) they believe astronautics worth-while;
6) they have all necessary means at their disposal;
7) they consider the Earth as an interesting place to be visited, — even if all this were proved (and none of these points has been in fact proved) — even then the said kind of arguments would be of no significance at all due to the fact that feasibility of astronautics is now scientifically proved.

Notes by RB Editor:

[1] Rynin, Nikolay A. (1877–1942) — a famous Russian engineer in the aerospace field, author of the remarkable work "Interplanetary Communications".

[2] In the original: "...deystvitelno, *ne* podtverzhdayetsya..." (= is *not* confirmed). But, judging from the following text, it is an evident misprint.

[3] Tsiolkovsky, Konstantin E. (1857–1935) — a great Russian pioneer of cosmonautics, author of many basic books, ideas, and inventions in this field.

[4] Perelman, Yakov I. (1882–1942) — a well-known writer who has to his credit many popular-scientific books in the fields of physics, mathematics, astronomy and cosmonautics, one of enthusiasts of the rocket technology at the early stage of its development in the USSR.

ANCIENT E.T. CONTACT SOURCE OF DOGON ASTRONOMICAL KNOWLEDGE?

Ida P. Moffett — Continuum Foundation

1. Dogon astronomical knowledge

When France conquered the former Kingdom of Mali in 1892, the Dogon offered fierce resistance. This earned them the reputation of being a particularly ferocious and backward people. The undeserved stigma was to last until well into the next century, when they became the subject of extensive research.

French ethnographer Professor Marcel Griaule began to conduct field studies in Africa in 1928. After the interruption of World War II, Griaule and his large number of co-workers resumed their activities among the Dogon and several other peoples in Mali.

The Dogon have a unique cosmology which is reflected in every detail of individual life and of their social institutions. Most ceremonies, which symbolically reenact some aspects of their creation myths, are communally held — much like the Lesser Mysteries in classical Greece. They can be explained on a superficial level, "simple knowledge" in Dogon words, or on increasingly deeper levels of understanding. The Dogon had assisted Griaule in his inquiries since 1931, but always in terms of the "simple knowledge". However, over the years his questions had become more and more penetrating and the Dogon knew they would have to respond from a more advanced perspective. They were impressed by his moral stature as a man and by the sincerity of his interest. Therefore a group of Dogon Elders and totemic priests decided in October 1946 to take him into their confidence and fully initiate him into their teachings.

As his instructor they chose a widely respected old hunter, Ogotemmeli, who had lost his eyesight in an accident. The two men conversed for 33 days at the hunter's dwelling. The results of this sequence of instruction were published in 1948 as *Dieu d'eau, entretiens avec Ogotemmeli.* The English translation appeared in 1965 under the title *Conversations with Ogotemmeli.*

When Ogotemmeli died on July 29, 1947, other initiates continued his work, even after Griaule's own death in 1956, as is evidenced by innumerable publications, mostly in academic journals. In 1965, Griaule's close collaborator, Germaine Dieterlen, compiled their joint findings on the Dogon creation myth into a major opus, *Le Renard pâle.* The English translation appeared under the auspices of Continuum Foundation in 1986 as *The Pale Fox.*

However, of the whole panoply of fascinating data that has come to light what has intrigued the Western world the most is the Dogon knowledge of astronomy: an article by Griaule and Dieterlen, *Un Système Soudanais de Sirius* [1], shows that the Dogon are fully aware that the star Sirius (A) has a small high density companion, Sirius B (in fact, they contend there is a third star in the system), with an elliptical orbit and a 50-year period. Moreover, they depict Saturn as surrounded by a ring and Jupiter accompanied by four satellites — all this without the help of any optical instruments.

Now Alvan Clark, a 19th century telescope maker, had discovered the existence of Sirius B only in 1862, and still later in 1914 Walter Adams proved it was a dwarf of incredible density. Understandably the origin of Dogon knowledge has baffled the Western scholar and layman alike. Astronomer Kenneth Brecher — on a little note of irritation — sums it up: "They have no business knowing any of this" [2, p. 109].

2. Recent source for Dogon knowledge claimed

The simplest solution to a mystery is to explain it away. Brecher writes that Carl Sagan, Ian Roxborough and he himself independently had the idea that during the 'twenties a Jesuit priest, who had just read about Sirius B in a newspaper, might then have gone to Mali. Perhaps he inquired about the myths of the Dogon who, in turn, asked him to tell them his myths. Supposedly he pointed to the brilliant star and passed on his newly gained information. And analogous to the South Sea Islanders who developed the Cargo Cult after their World War II contacts with the Western armed forces, the Dogon immediately incorporated this 'myth' into their sacred lore [2, p. 110].

How obvious, except that there are some things wrong about this charming scenario. As some anthropologists have protested, instant insertion of such a stray piece of information into an established body of traditions is highly improbable. Just as unlikely is the notion of the Dogon and the hypothetical Jesuit priest chummily swapping myths, judging by the long period of observation before the Elders' acceptance of Griaule. Nor can the Dogon be compared to the South Sea Islanders, for they have a long-established culture — even if not a technological one — and are not overly impressed with White people. And it is a historic fact that the arts and sciences flourished in Mali when the intellectual life among European nations was still stifled under the heavy blanket of the Dark Ages.

More importantly, the imaginary conversation ignores or discounts two facts imparted by the Dogon themselves: (a) Masks are carved for each Sigui ceremony, held every sixty years and related to Sirius and its companions. In 1931 Griaule and Dieterlen were shown nine masks in a cave in Ibi, while the place of three more that had crumbled to dust could easily be recognized. This dates the ceremonies back to the thirteenth century [1]. (b) In a lecture given in 1970 Dieterlen referred to a very aged Dogon man who had participated in three Sigui ceremonies: the most

recent in 1969, the previous one around 1909, and once in approximately 1849, when he was still in his mother's womb (for this the Dogon consider valid attendance) — some thirteen years before Sirius B was discovered by Clark [3].

3. An ET source for Dogon knowledge?

Whereas a recent source is almost certainly out of the question, Robert K. G. Temple suggests the Sirius tradition might be thousands of years old. In his work *The Sirius Mystery* [4] he explores the possibility of inhabitants from the Sirius system itself visiting the Earth in prehistoric times and passing on the information to the priests of Mesopotamia and Ancient Egypt. On account of its highly secret nature it was then encoded into the classical Mediterranean mythologies.

Temple assumes the knowledge finally came south with the Garamantians, a Berber tribe that migrated from Libya to the Sahara desert. There they intermingled with the local Negroid population and can thus, he believes, be considered the real ancestors of the Dogon.

In Dogon myth the author finds evidence of the arrival of ETs, semi-aquatic beings, on what is described by the Dogon as an 'ark', but must have been a space capsule in his view.

A great deal of research and thought have gone into *The Sirius Mystery*. Its thesis is bold and, Temple feels, could have serious implications for mankind today. Therefore, it is worthwhile to review some of its more salient aspects against the general background of Egyptian myth and of Dogon cosmology as presented in *The Pale Fox*.

Since Dogon myths, unlike those of ancient Egypt, are not part of our cultural heritage, we will give a thumbnail sketch of the narrative as it pertains to Temple's theory. Of course, a mere outline cannot do this unusual and detailed account justice, but anyone interested can find the full story in *The Pale Fox* [5].

4. Amma and the Creation

In the beginning, then, there was Amma, the Creator, who "rested upon nothing," but was "an egg in a ball" [5, p. 81]. This egg had "four ovoid clavicles," held in a formation so tight as if they had been "welded" together [5, p. 81]. The clavicles might also be considered as forerunners of what later became the four elements.

Amma's first deed was to design the universe-to-be. During this initial phase he worked with the signs that were contained in this egg and were 8 x 8 x 4 + 8 + 2 = 266 in number. Created by his divine thought and still only in an ideative stage, this universe was Amma's twin and replica. He then took a part of all the substances that made up himself and, kneading it together with his saliva, made the seed of the Acacia, the *sene na*.

His first work turned out to be unsatisfactory, and so he destroyed it and undertook a second one. This time he used the seeds of cereals and edible plants, the most important of which would be the *po*, the infinitesimal *fonio* (millet) seed. He also utilized the design of the first world as well as the elements of the *sene na* creation.

Inside his egg he then made a spiraling motion like a whirlwind. This led to the creation of the *po* seed, which also "spun and scattered the particles of matter in a sonorous and luminous motion which, however, remained inaudible and invisible" [5, p. 130], indicating that even at this point the creation had not progressed beyond being a thought in Amma's mind.

The *po* seed itself was twin and, in turn, produced six others of its kind in pairs. The four elements were blended in the seed, and this action set in motion a series of vibrations, the seventh of which touched the shell of Amma's egg, pierced a hole in it and projected an eighth vibration outside. But this one was incomplete because it was made up only of parts of the others and also lacked the element water. This eighth vibration will become the Pale Fox.

Next, Amma created the other grains that were to play an important role in his work. The steps in this process were many and intricate. Thus far, all things had developed within Amma's egg, but during the following phase this egg would become his placenta, and it was double. The two parts were held together by Amma himself. Within this twin placenta he created two pairs of male twins. He had wished for these twins to develop normally, but somehow this must have been very difficult, for it is said his labors succeeded only the eighth time.

5. The Nommo Anagonno

These beings, who Amma eventually provided each with a female counterpart, are collectively called the Nommo Anagonno. In the Dogon drawings they are symbolically represented in the shape of fishes to indicate they were still in their fetal form. The first is the Nommo Die, or great Nommo, who acts as Amma's representative in the sky and guards the spiritual principles of all life forms on Earth, including the souls of the grains. The second, the Nommo Titiyayne, is the messenger of the Nommo Die and guardian of his spiritual principles. The third is called O Nommo, Nommo of the Pond. Later in the narrative he is sacrificed to "purify and reorganize the universe" [5, p. 181], to atone for the wicked deeds of his brother Ogo. Then called Nommo Semi, sacrificed Nommo, he was resurrected as a human being and descended upon Earth with the ancestors of man in an ark fashioned from his placenta. Once the ark had landed, however, he resumed his role as a divine being.

The Fourth Nommo is the wayward Ogo, who simply would not wait until Amma united him with his female twin. His impatience and unruliness seriously upset Amma's plans, but to make matters worse, he stole a piece of his own placenta and copulated with it. Because the placenta was, as it were, his mother, this was regarded as

incest, which defiled the universe. As a punishment Amma turned him into a Pale Fox, *yurugu*, a being that could only walk on all fours like an animal. He continued to long for his twin, but Amma kept her beyond his reach.

When the development of these four Nommo had been completed, Amma's clavicles opened up to form space and the cardinal directions. He created 14 heavens and 14 earths. The Dogon say Amma's egg was "the mother of the stars" [5, p. 192]. The fourth of these worlds of stars is where man will live. Although from now on the Nommo are the main protagonists, the universe is still unfinished. All through Ogo's restless wanderings, his brother's sacrifice and subsequent resurrection, on one level or another the work of creation went forward. When the project had been finalized, Amma entrusted the management of the universe to the four Nommo, his Monitors.

6. Creation of Sirius

The star Sirius, *sigi tolo*, came into being when the Nommo Titiyayne, who was the executioner at the sacrifice of the Nommo Semi, severed his brother's sex organ, while at the same time cutting off his umbilical cord. Sirius, therefore, is symbolic of the Nommo's placenta and umbilical cord. Since the emasculation was meant to purify the entire universe after the disorder caused by the Fox, the Dogon say: "Sirius is the navel of the world" [5, p. 257], hinting that this star is centrally situated. Actually these events prefigured the creation of Sirius which was, at this point, no more than a placenta.

As a result of the Nommo Semi's sacrifice "the stars and seeds were strewn throughout space (the world)" [5, p. 310]. Some of the victim's organs became well known star formations, such as the Belt of Orion, formed of the liver. The companions of Sirius sprang from the seeds of his clavicles as they fell out.

When Amma was satisfied that order once more reigned in this universe, he restored the Nommo Semi to life. This was accomplished in five stages and is symbolically represented by a drawing, "the star of the tenth moon," showing a circle with five groups of two rays inside. Thereafter Amma formed the ancestors of man out of the substance of the sacrificed Nommo's placenta, a token of the close kinship between this Nommo and mankind.

During the next phase the *po* makes its important contribution to the process. This little millet seed had been filled with a great many elements which it held tightly in its coils. Once it unwound, however, these fell into the "great ark" of the resurrected Nommo.

7. The Nommo's ark

As mentioned, this vehicle had been fashioned out of the placenta of the sacrificed Nommo. Eventually it would cover the impure Earth of the Fox. It contained sixty compartments — sixty being a symbolical number, "the reckoning of the placenta" in Dogon parlance. In these compartments came down to Earth all the components and beings that compose Dogon agricultural society. They were grouped in 22 categories, including the ancestors of man in four pairs.

Since the ark consisted of the Nommo's placenta, it had to emerge from Amma's womb. Its journey to Earth had a definite impact on the formation of space, for Dogon say: "When the ark was descending, space was four corners; when the ark had descended, space became four sides" [5, p. 465]. The landing of the ark is described in graphic detail: it raised a column of dust; it "slipped in the mud" because it was made of the moist placenta; and because it was so heavy, it squeezed out the "blood", so plentifully present in the placenta, so that it spurted up to the heavens.

When the ark had emptied itself of its contents, Amma pulled it back up to the sky by a chain. At that memorable moment the people who had seen Sirius shining while they were going by in the ark then beheld the first rising of the Sun, which was to shed its light from that day on. The landing place — and the Dogon are very definite about this — was at Lake Debo, not far from where they now live.

8. Sirius B and C in Egyptian myth?

To establish that Sirius B was known in the ancient Mediterranean world, Temple has scanned Egyptian and other myths and scriptures for clues that characterize the enigmas of this star: that (a) it is invisible to the naked eye, hence 'dark', (b) it is dense and heavy, and (c) it has an orbit of 50 years.

As is known, Sirius played an important role in Egyptian religion. Wallis Budge points out it was "the symbol of Isis in the heavens", from which Temple deduces that Isis, whom he considers the head of the Egyptian pantheon, actually is Sirius. Nephthys, he reasons, must then be the invisible, 'dark' Sirius B. And a third sister, Anukis, depicted in a celestial boat with Isis, might represent Sirius C. The fact that Anukis is pouring liquid from two jars Temple interprets to mean there are two watery planets around Sirius C. He finds confirmation in the fact that the Sothic heavens of Egyptian myth were a "watery, reed-growing paradise" [4, p. 64].

9. Ancient ETs?

The almost inevitable next step: if there are such planets in the Sirius system, chances are they are inhabited by amphibious beings who might well have visited Earth in prehistoric times. Temple cites a record of this type of an event, which has come to us through Berossus, a priest and historian who lived in the time of Alexander the Great. His sources were ancient Babylonian written accounts which he claimed covered fifteen myriads of years (150,000 years) [6, p. 38]. He recounts the arrival in Mesopotamia of a semidaimon called Oannes, who had the body and

head of a fish; however, under this was the head of a man. He moved on human feet which were joined to the tail of a fish. Oannes instructed humanity in agriculture, architecture, and other arts and sciences, and "everything which would tend to soften manners and humanize" the life of man who still "lived in the lawless manner like the beasts of the field" [7, p. 18]. As evening fell, Oannes would return to his element, the Sea, where he habitually spent the night. After him, three other beings of a similar nature arrived in Mesopotamia at different times. They fulfilled the same civilizing function as Oannes.

The theme of such a class of culture heroes Temple has found in Hermetic literature which was so influential among the Neoplatonists. The Trismegistic treatise *The Virgin of the World* mentions a type of beings higher than man who would come to his rescue on Earth when the need was great. One of these was Hermes, who "went to the stars" when his task had been fulfilled. He was, according to Temple, succeeded by a group of initiates collectively called Thoth, to whom was linked the legendary Imhotep who lived during the Third Dynasty (2600 BC).

10. Sirius mysteries reflected in Hermetic literature?

This treatise, Temple believes, also contains a reference to a dark partner of Isis in the following quote from an Egyptian magic papyrus: "I invoke thee, Lady Isis, with whom the Good Daimon doth unite, he who is Lord in the perfect black" [4, p. 73]. If Isis is Sirius A, then surely the "Lord" must be Sirius B. The Good Daimon, however was generally thought to be Osiris, associated with Orion, but perhaps in this particular case, Temple reasons, Osiris has become a stand-in for the dark companion Sirius B.

In another quote from the same treatise that "[men] will seek out... the inner nature of the holy spaces... and will chase after them into the height, desiring to observe the nature of the motion of the Heavens", Temple sees a connection with modern space programs. Furthermore, the Hermeticists regarded these strivings to be "moderate things", for "in their daring they [men] will track out Night, the farthest Night of all" [4, p. 77]. Could this mean we will find evidence of other intelligent beings somewhere out there in the cosmos? And if so, could they be found in the Sirius system?

11. Is the orbit of Sirius represented in ancient myths?

The number fifty is used with fair frequency in classic mythology. There are, for instance, fifty Argonauts. The hell hound Cerberus boasted fifty heads, as did the monsters Cottus, Briareus and Gyges. Danaos had fifty daughters, his twin brother Aegyptos fifty sons. King Thestios was another father of fifty daughters, with each of whom Jason, the leader of the Argonauts, slept on successive nights. Nereus also had fifty daughters. And fifty men accompanied the hero Gilgamesh on his adventures.

12. Were the Nommo ET visitors?

As mentioned earlier, in the Dogon schematic drawings the Nommo are represented as fishes. Their association with the element water is also apparent from the title "Master of the Water" and from the Dogon saying that the Nommo "resides in the water". From these data Temple concludes that, like the Mesopotamian Oannes, the Nommo must be amphibious cosmonauts.

According to the Dogon the Nommo's ark landed at Lake Debo, northeast of where they now live (in the direction of Egypt and the Middle East, Temple interprets). As it descended, "the Nommo cast his word down in the four directions" [5, p. 465]. Now this mythic 'word' is equivalent to the Greek Logos, meaning air and sound, but which to Temple also means rushing wind. The description of the event — the thunderous sound, the column of dust, the violent impact and the skidding as the vessel hit the ground — appears to him characteristics of the landing of a spacecraft. The blood that spurted up from the placenta surely is rocket exhaust; the new star that thereafter appeared in the sky, an interstellar spaceship hovering over the Earth after the smaller module (the Nommo's ark) had landed. Even the long, rectangular marks topped by a point which are carved on the *sirigi* masks (depicting the descent and the impact of the ark, according to the Dogon) look remarkably like rockets.

Earth, then, could now be under constant observation by beings from outer space who are farther advanced as a civilization than we, and who left their automatic computer probes for this purpose before returning to their planet in the Sirius system.

13. The hidden code within the myth

In our culture myths are generally regarded as mere wondrous imaginings or as primitive tales. However, to anyone with a deeper interest it becomes apparent they have a hidden meaning. Besides, if not, why would the cream of the Hellenic intelligentsia — Solon, Plato, Pythagoras and many others — spend years studying the subject with the Egyptian priests; or why would the Dogon pursue the "deeper knowledge" of their tradition all their lives. What can be the secret within the code to make such efforts worthwhile?

In his treatise on Isis and Osiris Plutarch defines myth as "wisdom shrouded in fables and stories giving obscure indications and glimpses of the truth" [8, p. 7]. The reader should "hear these stories about the gods... in a reverent and philosophic spirit" [8, p. 10]. This would suggest Plutarch and his more enlightened contemporaries thought the hidden message to be of a sacred and metaphysical nature. To the ancient cultures, however, all knowledge was sacred, even the

exact sciences, such as mathematics or physiology, and myth was probably the preservative medium not only for religious truths, philosophy, ethics and morals, but also for natural sciences. Myth also perpetuated archaic racial memory of cataclysms and transformations of the Earth and the history of dynastic rulers, many of whom, during the ages, had merged in the popular mind with the gods and heroes. Sometimes the same story may have had different meanings, as Plutarch also points out. Clearly, in the minefield of mythic symbolism the interpreter must tread warily.

The same caution should be observed in regard to the writings of the Neoplatonists and Hermeticists. The Neoplatonists held the universe to have sprung from the One, who emanated out of itself the Divine Mind or Logos, which contains all life and is a reflection of the One. The highest goal of these philosophers was, through contemplation, the mystic union of the human soul with the Logos and its eventual reabsorption into the One, the cosmic source of the all. So the passage from *The Virgin of the World* quoted above is much more likely to pertain to the desire of the Neoplatonists to understand the inner nature of Reality and the deepest mystery of the godhead. From their lofty spiritual viewpoint, space travel might well have appeared as the hubris of the unevolved.

14. Secrecy surrounding sacred traditions misunderstood

Because Temple has approached the arcane scriptures and myths that were his source material largely from a superficial and literal orientation, he has jumped to some hasty conclusions about them. One of the most glaring of these concerns the nature of the secrecy that surrounds Dogon knowledge, as it did the sacred teachings historically. From Temple's perspective it is all a conspiracy on the part of priests and initiates to hide something from the public, in this case an ET contact. In the same vein he contends the Dogon elders were "very reluctant" to reveal their traditions and Griaule and Dieterlen "drew the secrets out of the Dogon" [4, pp. 69–70]. However, there is a great difference between the usage of secrecy by a religious hierarchy, whether ancient or present-day tribal, and by a temporal authority such as the CIA – mainly because of a dissimilarity in motivation. In Egypt and Greece the secrets *were* disclosed, during the initiations into the Greater Mysteries, for instance, but then as always, only the few were prepared to invest their life energies in the rigorous training this required.

Among the Dogon, instruction is open to anyone who is desirous and morally worthy – even to a stranger such as Griaule. And when he had proven his sincere interest, the Elders shared their knowledge with him of their own free will. Contrary to the opinion expressed in *The Sirius Mystery*, there is not the slightest evidence of pressure or coercion on the part of the French ethnologists. This would also go against Dieterlen's statement that the Dogon were aware "they were opening doors... [and] they never withdrew from [their] decision" [9, p. xvi].

15. Interpretation of Egyptian myth

The author of *The Sirius Mystery* has also taken some liberties with Egyptian mythology. For instance, the goddess Isis, though widely revered, was never considered the head of the pantheon, for this honor went to Atum-Ra, the one Power, who dwelt in the beginning of time in the cosmic sea, Nun. Like Amma of the Dogon, Atum first created his own double. Then he spat or breathed out Shu and Tefnut, who created Geb, the Earth, and Nut, the Sky. These, in turn, gave birth to two pairs of twins: Osiris and Isis, and Seth and Nephthys. Thus, Isis, sister and consort of Osiris, is but one member of the initial Ennead consisting of Atum-Ra and his eight offspring.

As is the case with most ancient gods, the cult of Osiris underwent permutations in the course of time. He is sometimes said to be a solar, at other times a lunar deity, or again the god of vegetation. On a more philosophical level, however, Osiris was believed to engender life in all its forms, which was nurtured by Isis. These two divinities and their counterparts, Seth and Nephthys, governed the cycles of becoming, growth and death, to which all of Nature, from atom to galaxy, is subject. Hence the epithet 'dark' applied to Nephthys. Essentially these four are primordial forces, links in the creation process. To take Isis to *be* Sirius is to confuse a part with the whole. Wallis Budge made no such mistake when he called Sirius "the *symbol* of Isis in the heavens", echoing Plutarch's statement that "the Dogstar was *sacred* to Isis" [8, p. 18] (italics ours). For reasons lost to posterity, the Egyptian sages must have recognized a correspondence of *quality* between the cosmic force, Isis, and the star, Sothis.

Equally unwarranted is the assumption that because she is a 'black' goddess Nephthys *is* Sirius B, for this description, as explained, was symbolic. Moreover, there is a difference between the darkness of Nephthys and the 'perfect black' attributed to Osiris in *The Virgin of the World*. Cosmogonies from around the globe refer to the stage before actual creation as one of total emptiness and darkness. All things and beings, indeed, light itself, come from this dark void. Therefore, Osiris is the creative Logos out of whose metaphorical 'perfect black' comes manifestation – not only once at the primal beginnings but, through the cycles of death and rebirth, again and again.

As for the third passenger in the celestial boat, Anukis or supposedly Sirius C, Egyptian iconography abounds with personages pouring water from a jar. To give one example: on the island of Philae is a bas-relief of Hapy, personification of the Nile, with two jars from which liquid is flowing [10, p. 5]. To project watery planets onto the Sirius system solely on the basis of this detail

is a leap of the imagination as enormous as to ascribe such planets to Aquarius.

16. The meaning of numbers

Number plays an important role in mythological and philosophical systems. As we know, Pythagoras was of the opinion (and Plato shared this view) that the universe and all relations within it could be expressed numerically. Later the Kabbalists, though their official formulations probably date from the Middle Ages, actually built on the theories of Pythagoras in their numerical interpretation of the Scriptures.

Since the ancients held number to be sacred and to represent the structure of the cosmos, some numbers, such as 3, 4, 5, 7 and 9, or 10, 12, 24, 40, 50 and 432, to name a few, occur time and again. The number 50 often stands for 7 x 7 + 1, because the universe was thought to consist of seven distinct spheres of being, of which the material is just one. Each of these, in turn, was subdivided into seven, making a total of 49, plus the One from which the totality came forth. Thus, though it may seem striking to find the number 50 so widely represented in the various myths, if another number were to have great significance in some other context -- say, 9, 12, 432, or it permutations 4320 or 432,000 – this would be found to occur equally frequently. The fifty sons or daughters of many deities may well symbolize the same basic fact with different nuances.

17. The civilizer in fish-form

The appearance of a divine or semi-divine being in fish-form, often emerging from the sea, is a common mythological theme. Some of them came specifically as culture-heroes to civilize a still brutish mankind. A few examples: Brahma, Vishnu, Ea, Horus, Oannes and his successors. Some scholars believe the name of Orpheus was derived from a kind of fish (see Ref. 11, p. 67). Even the Savior of Christianity is symbolically represented as a fish and said to have been born from the Virgin Mary, or *mare*, the sea.

Therefore, the archetype of the avatar in fish-form is culturally very wide-spread. Most of these 'fishes' are creative deities. It would be totally illogical to typecast any or all of them as amphibious cosmonauts from Sirius or anywhere else.

Moreover, regardless of the verbal description of Berossus, the sculpted effigy of Oannes, which he must have seen in his time, exhibits the anatomy of a human being with well-muscled arms and legs. The fish form hangs from the shoulders as a mantle, and the fish's head looks somewhat like a bishop's mitre.

On reviewing some of the principal arguments presented in *The Sirius Mystery*, they appear insufficiently grounded to uphold the theory that the ancient astronomers were aware of the existence of Sirius B, or that this knowledge was, at any time, encoded into Mediterranean myths.

18. Dogon cosmology reexamined

When *The Sirius Mystery* was published in 1976, the English translation of *The Pale Fox* was not yet available (as mentioned, it went on sale late 1986). As a result the reader not fluent in French was unable to form his own judgment from the full text and had to rely on the few fragments presented, some out of sequence, most burdened by the overlay of the ET theory. However, anyone can see from the summary included above that, like Brahma, Vishnu, and other mythological personages, the Nommo are creative deities. As pointed out earlier, their schematic representation as fishes merely expresses their lack of development at this stage. The human foetus, too, the Dogon consider a fish, and man, in their view, becomes a fish after death [5, p. 409]. Only runaway imagination could conjure an amphibious humanoid out of these data. Besides, the four Nommo preexist the entire formation of the Sirius system, and when the ark lands on the Fox's earth the whole universe is still in the throws of becoming. Another improbable detail: the Dogon say the ark was made of the Nommo's placenta. Whatever the interpretation of this statement, such a cosmic component seems strange material indeed for a space module.

Before the episode of the ark, Sirius, though mentioned in connection with the sacrifice of one of the demiurges, is still a 'placenta,' i.e., it is as yet unformed. The descent itself is an essential part of the creative process, for when the ark was on its way down "space was four corners; when the ark had descended, space became four sides". If Sirius was in formation at this stage of the mythic sequence, where did the highly developed aquatic civilization come from? The words may seem to describe a spacecraft landing, but the total mythic context can only point to a metaphoric description of cosmic events. That a space visit would be somewhat premature is also evident from the Dogon saying that after the departure of the ark the sun shone for the first time.

Also, the timing of the appearance of the "star of the tenth moon" (whose name is not given), or the so-called interstellar spaceship, has been misrepresented, for this star had already come into being earlier in the story, after the sacrifice and resurrection of the Nommo Semi.

The manner in which the ark returned to its place of origin is another indication we are dealing with a myth instead of a prehistoric event, for it is Amma the creator himself who pulls it back up to the sky "by a chain". Journeys to and from Earth along a 'chain' are a well known mythic theme. For instance, the Yoruba relate that in the beginning when the god Obatala descended from the heavens to a wild and dark Earth, he did so along a chain – a golden one this time, made from trinkets contributed by all the gods [12, p. 128].

As for the ark's landing place, Lake Debo: myth always projects the events of the primal

beginnings onto its own territory — hence the many 'navels' and 'centers of the world' spread around the globe. Therefore, Lake Debo is no more an actual landing site than any other place north-east of the Double-Ogol villages, including the Middle East.

To summarize: on closer scrutiny there is no real evidence in Dogon myth of an early ET contact. Such a theory could only be developed on the rocky foundation of likely sounding words and fragments taken out of the total context. Temple's chapter heading for this part of his book is "A Fable" — which is really what it is, be it an interesting one.

19. Possible origins of the Sirius knowledge

If neither the Jesuit priest nor the visitor from Sirius is a probable source of the Dogon knowledge, where did it come from? Even without any ET connection, it could still have originated with the Mesopotamian or Egyptian astronomers. We tend to underestimate the scientific abilities of early cultures, but the Mayans, for instance, who had the zero, had a symbol for periods of 64 million years and "did not have great difficulty in handling such large numbers" [13, p. 316]. The Hindus, also with the aid of the zero, were able to calculate the mind-boggling duration of their yugas (major time periods).

The Egyptian tombs had been plundered for several thousands of years before the archaeologists could investigate them, and even today still more is hidden under the desert sand than we know. The remains of optical instruments could easily have disappeared or not yet been uncovered. If so, Mediterranean emigrants would have been likely transmitters. Parallels between Egyptian and West African kingship and mythology suggest there is such a link.

Neither can the possibility be totally dismissed that the Sirius tradition derived from an archaic high culture that has since tracelessly disappeared — some kind of Atlantis, in other words. Though no evidence has ever been found in the Atlantic ocean and the existence of the sunken continent has long been written off as a mythic fancy, Plato's tale keeps nagging at the Western consciousness. For one thing, the immigration into Egypt and Mesopotamia of a more advanced population would offer an acceptable explanation of the sudden appearance of technological skills in that region that normally would have taken a long time to develop — if ever. At present Plato's account is being reexamined in the light of the latest archaeological findings around the Mediterranean basin. The discovery of an extraordinary concentration of arrow heads, dated to about 9000 BC, seems to confirm at least that portion of his report relating to the war between the Greeks and the Atlantean Kings [14]. However, until there is more proof of the rest of the story, an 'Atlantean' source has to remain a speculation.

20. The Dogon's own account

The Dogon themselves told Griaule and Dieterlen that during the reign of the first seven Hogons the Digitaria or Sirius B had not yet been detected. At that time the highest chief was always sacrificed after completing his seventh year in office. His spiritual and material principles were somehow sent to Sirius B to provide sustenance for it. The Dogon knew this star existed, but its "features had not been revealed to man because the star was invisible". The eighth Hogon, however, escaped the sacrifice by pretending to have died. After hiding for a suitable interval, he presented himself to his successor and informed him he had been to the star and knew its mysteries. Then he resumed his post, decreed that henceforth every Hogon would rule for 60 years, set up a new system for calculating time and performed the remarkable feat of raising "the level of the sky which, hitherto, had been so close to the earth that it could be touched" [1].

Human space travel without the benefit of hardware, as the Hogon claimed to have done, is not totally unheard of. The Swiss psychologist C.G.Jung describes how, in a state of bodily unconsciousness after a heart attack in 1944, he rose up into space and saw far beneath him Earth's seas and continents. Below him lay Ceylon, further ahead was India; beyond were the Himalayas, to the west Arabia and the edge of the Mediterranean. After his recovery he calculated he would have had to be a thousand miles high to get this view [15, p. 289]. Philo Judaeus (ca 20 BC — 50 AD), too, soared to the heights in ecstasy as "a fellow traveller with the sun and moon and the whole heaven and universe". The Neoplatonists had similar altered-consciousness experiences [16, p. 234].

However, the eighth Hogon almost certainly was not a historic, but rather a mythic figure. The theme of the raising of the sky is also encountered in Sanskrit texts, in Egyptian, Polynesian, Greek and many other mythologies, including those of North America and Africa, though sometimes the sky god himself, offended by his people's behavior, moves away from the Earth. The use of this theme places the episode in *illo tempore*, sacred primordial time. At any event, there is no evidence in the Dogon version that they acquired their information from Sirian semi-aquatic humanoids.

It is a pity so much attention has been concentrated on the question where the Sirius knowledge was derived from. Instead of being fascinated by a seeming anomaly, for which there probably is a quite plausible explanation, the West might focus on Dogon cosmology itself. It deserves to be studied on its own and in the light of comparative mythology, so that its opaque symbology will yield up meaning and knowledge. No doubt the encoded information will prove of interest and importance to us. I believe when the Dogon Elders undertook to share their ancient heritage, such was their motivation.

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THE BLACK BALL: A FEW WORDS IN ADDITION

In the last RB issue we published a paper by Dr. Valentin N. Fomenko presenting the results of an investigation of the so-called Black Ball — an enigmatic object, found in 1975 in West Ukraine.[1] The author reported that a team of researchers had discovered that the Ball had possessed a number of anomalous properties. In particular, there was a strange "core" inside it that, judging from the results of an experiment, had a negative mass (that is, had in fact the property of antigravity). The researchers assumed the Ball to have been part of the propulsion system of an extraterrestrial spacecraft containing a quantity of antimatter. Unfortunately, they could neither confirm the "negative mass" result with another method, nor completely investigate the Black Ball, since its owner has strongly demanded its return. Which has naturally been done. But the story of the Black Ball did not ended with this...

In September of 1994 one of the largest Russian newspapers — *Izvestiya* — has published a long article, entitled "A Mysterious Ball in the Lubianka cellars" and authored by Yuriy Kholodniy, a Ph.D. in psychology.[2] According to him, in February of 1981 two leading officials of the scientific and technical department of the Committee for State Security (the almighty KGB) were summoned to the Kremlin, to the no-less-almighty Military-Industrial Commission (VPK) of the USSR Council of Ministers. There they were informed about the results of Dr. Fomenko's investigations. (The author designated the researcher just as "F.") The Commission asked the KGB authorities to find out who was holding the Ball and to withdraw it immediately. The 26th Congress of the Communist Party of the Soviet Union was approaching and therefore the Ball had to be "neutralized" by no later than February 20. A few days later the VPK sent to the KGB a copy of Dr. Fomenko's Report.

The KGB set up a special working group meant to solve this question. One of its participants was Dr. Y.Kholodniy.

Soon they sought out a Moscow parapsychologist (called by the first letter of his name — "D.") who had apparently obtained the Black Ball from its owner, Mr. B.N.Naumenko. Mr. D. used the Ball as the active element of his "generator of biological field" (or "biofield") that, according to his words, could influence living beings with beneficial or not-so-much beneficial effect.

KGB officials withdrew the "generator" from Mr. D.'s hands and the working group disassembled it, discovering a brown ball. Over two months they investigated the Ball with great thoroughness. Their main conclusions were:

1) The Black Ball is composed of glass, even if somewhat unusual (bearing practically no sodium and a great deal of strontium).

2) In the shell of the Ball there are microcracks, through which water can percolate into it. So, the shell of the Ball is even not water-proof, let alone air-tight. Therefore it cannot be a container of antimatter.

3) The "negative mass" result was due to a ten-percent error in detecting coordinates of the Ball's center of gravity.

As for the age of the Black Ball, Dr. Kholodniy was somewhat vague about it: "By carbon 14 dating, specialists from the Geological Institute of the USSR Academy of Sciences determined that, although the age of the "Ball" was not 10 million years, it was nonetheless a centuries-old antique, being, most likely, of artificial origin."

Judging from the contents of the article, in the process of the investigation the Ball was broken. This is not directly asserted, but the author mentions its *fragments* that were shown to Mrs. Faina S. Petryakova, a prominent Ukrainian specialist in the history of glass. Mrs. Petryakova concluded that the Ball was a *gallo*, that is a primitive "device" for ironing the sleeves of shirts and

blouses that had been in use in the Ukraine in eighteenth and nineteenth centuries. The thickness of the leached layer on its surface indicates that its age is some 150 years.

Usually *gallos* were manufactured from trashy glass that remained in the glass furnace after it had worked continuously for several days. Sodium, being a light element, left the furnace with good glass, and the heavy strontium accumulated in the remains.

Since Mr. D. insisted that the Ball be returned to him, the KGB specialists made a mould of it and installed it into the "biogenerator". When returned to Mr. D., the device did not arouse any suspicion on his part. It continued working, emitting the "biological field"...

Such was the contents of the article by Dr. Yuriy Kholodniy... Although it looked as if everything was said and done, some points in the article gave rise to doubts... That's why Dr. Valentin Fomenko sent to *Izvestiya* the following letter:

"To: Mr. Leonid M. Mlechin, Editor
Izvestiya
Pushkin Square, 5
Moscow

October 4, 1994

Dear Mr. Mlechin,

In your newspaper of September 24, this year, you published an article "A Mysterious Ball in the Lubianka cellars" by Y.Kholodniy, a research worker of a KGB Scientific-Research Institute, who had taken part in an investigation of the so-called "Black Ball". He describes an attempt of the KGB to verify the hypothesis that the Black Ball is a container of antimatter.

I, Valentin Nikolayevich Fomenko, am the author of the report on the results of preliminary study of the Black Ball that is referred to in that paper. That is why I would like to meet with Mr. Kholodniy and to discuss with him some questions dealing with this matter.

<...> As far back as 1981, there appeared some data, according to which not only had the KGB palmed off a forged "gallo" on Mr. Deev[3], but also Mr. Deev had palmed off a mould of his generator on the KGB.

Apart from a statement by a co-worker of Mr. Deev who has made this "device" and with his own hands encapsulated the Black Ball into a block of epoxy resin (to free the Ball from the latter would be certainly impossible), there are the following points in the article that confirm this assumption:

1. The color of the ball, found in the "device", was brown. But the real Black Ball consisted of a **black** glass-like substance, covered with a yellow-grey leached layer. There were no brown spots on it.

2. The color of the Ball's shell was deep black, which was clearly visible at those places on the Ball's surface, where the leached layer was chipped off. The shell was opaque even to the light of a powerful halogen lamp. But Y.Kholodniy describes its fragments as bottle-green in color.

3. The Black Ball had no microcracks in its shell, through which water could have percolated into it.

4. Inside the Black Ball there was not a void, but a core, whose density was only four times less than that of the Ball's shell. It was established by an X-ray study of the Ball and photometric scanning of its X-ray photographs.

5. In the process of our investigation of the Black Ball there was also considered — and rejected — the hypothesis that it was a gallo.[4] In particular, the leached layer up to 1.5 mm thick certainly could not form over a period of 150 years. <...>

The only possible conclusion is that the KGB specialists did investigate a real gallo (with a void inside it), but not the real Black Ball.

There are in the article some internal inconsistencies as well. In particular, according to it, "by carbon 14 dating, specialists from the Geological Institute of the USSR Academy of Sciences determined that, although the age of the "Ball" was not 10 million years, it was nonetheless a centuries-old antique, being, most likely, of artificial origin." On the one hand, this statement contradicts the declared age of the gallo, which is supposed to be 150 years. On the other hand, it is just absurd, since there cannot be any carbon at all, let alone carbon 14 in the "bottle" glass of a gallo. <...>

In this connection, I would be glad to meet with the author of the paper, or with you personally, and to discuss the matter in detail. If you cannot give me Mr. Kholodniy's telephone number, please let him know my own number (attached). Please ask Mr. Kholodniy to call me at any time that suits him.

Sincerely yours,
V.N.Fomenko, Ph.D.,
Corresponding Member of the International Academy of Information Science."

Any reply? NIL.

Notes and References

[1] See: Fomenko V.N. Information on the Results of Preliminary Study of the Black Ball as a Possible Extraterrestrial Artifact. — *RIAP Bulletin*, 1997, Vol. 3, No. 1-2.

[2] Kholodniy Y. A Mysterious Ball in the Lubianka cellars. — *Izvestiya*, 1994, September 24, No. 184, p. 5.

[3] "D." in the article by Y.Kholodniy.

[4] For details, see: Fomenko V.N. *Op. cit.*, p. 9.

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